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INTELLIGENCE MEMORANDUM

QUARTERLY ESTIMATE OF THE PRODUCTION OF AIRCRAFT IN THE SINO-SOVIET BLOC JANUARY-MARCH 1956

CIA/RR IM-428

16 April 1956

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FOREWORD

This publication is the fourth in a series to be issued on a quarterly basis summarizing production of aircraft in the Sino-Soviet Bloc. The estimates presented are intended to supersede those contained in previous ORR reports and are published to satisfy consumer requests for the most recent estimates of aircraft production in the Bloc. The new methodology, based upon the production experience of the US aircraft industry since World War II, employed to a limited extent in CIA/RR IM-421, Quarterly Estimate of the Production of Aircraft in the Sino-Soviet Bloc, October-December 1955, 10 February 1956, SECRET/CIA INTERNAL USE ONLY, has been employed to a greater extent in preparing the present estimates. Thus changes in the present estimates from past estimates have resulted both from the methodological innovation and from later information. Attention is directed to an error in CIA/RR IM-421. In the comparisons between US and Soviet military aircraft production made in Figures 1 and 2 of that publication, estimates of the military aircraft production of the Sino-Soviet Bloc were inadvertently substituted for estimates of the military aircraft production of the USSR. The error has been corrected in this memorandum, and procedures have been instituted to preclude its repetition. No interagency coordination has been attempted, and no dissemination of this memorandum outside of CIA is planned.

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CIA/RR IM-428
(ORR Project 33.1043)

S-E-C-R-E-T

QUARTERLY ESTIMATE OF THE PRODUCTION OF AIRCRAFT IN THE SINO-SOVIET BLOC JANUARY-MARCH 1956*

1. Trends in Production.

In the first quarter of 1956, estimated production of aircraft by the Sino-Soviet Bloc rose slightly above production in the previous quarter.** The increase was mainly in the production of fighter aircraft in the USSR, where the production of new models is advancing along the production acceleration curve.*** A slightly larger increase, about 4 percent, was registered in terms of airframe weight because of the continued trend toward greater weight in modern aircraft. As in the fourth quarter of 1955, approximately 50 percent of the aircraft produced during the first quarter of 1956 are believed to have been combat types.****

2. Soviet Production.

The Soviet share of the estimate of total Sino-Soviet Bloc aircraft production remained essentially unchanged during the first quarter of 1956.***** Of the 2,150 aircraft estimated to have been produced by the Bloc during the quarter, about 1,800, or about 84 percent, were produced in the USSR. On the basis of airframe weight,

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* The estimates and conclusions contained in this memorandum represent the best judgment of ORR as of 1 April 1956.

** Estimated production of aircraft in the Sino-Soviet Bloc from 1953 through the first quarter of 1956, by number, is given in Table 1, p. 4, below, and by airframe weight, in Table 2, p. 5, below.

*** Estimated cumulative production of selected Soviet military aircraft through the first quarter of 1956 is given in Table 3, p. 6, below.

**** For the purposes of this memorandum, combat types include bomber, fighter, and ground attack aircraft. Other aircraft such as helicopters and transports have uses under both combat and noncombat conditions.

***** Production of aircraft in the USSR from 1953 through the first quarter of 1956, by number, is given in Table 4, p. 7, below, and by airframe weight, in Table 5, p. 8, below.

almost 95 percent of the production took place in the USSR. This figure continues to emphasize the fact that the Satellites produce relatively lighter aircraft. About 90 percent of all Bloc production of combat aircraft is believed to have taken place in the USSR during the first quarter of 1956.

Recent intelligence information has not resulted in any major changes in the previously published estimates of Soviet production of aircraft. Although sightings of Bisons at or near the producing plant in Moscow have not been numerous enough to support estimates of production of this aircraft, the previous estimates remain unchanged pending additional information regarding the degree of surveillance of the plant activities. It is now believed, however, that at least limited series production at the Moscow plant is in progress. The fact that a significant number of Bisons have already been produced is confirmed by recent sightings of them at two operational bases. Previous estimates of production of the Bear turboprop heavy bomber, of which at least seven are known to have been built, remain the same. There is still insufficient information to indicate that the Bear is in series production.

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Studies [redacted] of Crate (Il-14) twin-piston-engine transport aircraft [redacted] have required a marked reduction in estimates of Crate production since 1954. This reduction, however, is not significant to the over-all estimates of total production. It is estimated that the Camel twin-jet transport aircraft has now reached the production build-up stage and that two of these aircraft were completed in the first quarter of 1956.

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It is estimated that during the first quarter of 1956 Soviet production of military aircraft exceeded that of the US by about 4 percent.* This estimate is accounted for primarily by a decline of about 8 percent in US military aircraft production in the first quarter of 1956 and, secondarily, by an increase in Soviet military aircraft production of about 5 percent during the same period.

* Production of military aircraft in the USSR and the US from 1953 through the first quarter of 1956 is compared, by number, in Figure 1, following p. 12, and by airframe weight, in Figure 2, following p. 12. For additional comparison, US military aircraft acceptances from 1953 through the first quarter of 1956, by number, are given in Table 6, p. 9, below, and by airframe weight, in Table 7, p. 10, below.

3. Satellite Production.

In the first quarter of 1956 the European Satellites produced an estimated total of 330 aircraft, or about 16 percent of the total production of aircraft in the Sino-Soviet Bloc.* There is still no indication that Communist China or the Asiatic Satellites are producing aircraft. Czechoslovakia and Poland remain the largest producers among the Satellites, accounting for about 73 and 24 percent, respectively, or a combined total of about 97 percent, of Satellite aircraft production, by number.

The anticipated decline in production of Fagot (MIG-15) jet fighters in favor of production of the Fresco (MIG-17) jet fighters in Czechoslovakia has not yet occurred. Midget (U-MIG-15) jet trainers are being built at a 3 to 1 ratio to the Fagot in Czechoslovakia, while production of the Fagot in Poland continues at a constant rate. Recent reports indicate that the Avia airframe plant in Prague/Cakovice has begun production of the Crate. The first deliveries may be expected in mid-1956.

* Estimated production of aircraft in the European Satellites from 1953 through the first quarter of 1956, by number, is given in Table 8, p. 11, below, and by airframe weight, in Table 9, p. 12, below.

Table 1

Estimated Production of Aircraft in the Sino-Soviet Bloc, by Number
1953 through First Quarter 1956

Units a/

Type of Aircraft	1953	1954	1955	4th Quarter of 1955	1st Quarter of 1956
Jet bomber					
Heavy	0	10	61	22	26
Medium	10	170	310	86	90
Light	1,400	1,300	990	230	230
Piston bomber					
Medium	130	0	0	0	0
Jet fighter	4,000	4,200	3,300	710	750
Ground attack	460	210	60	0	0
Transport	1,700	1,700	910	240	220
Trainer					
Jet	520	1,200	1,400	370	370
Piston	880	1,100	1,200	300	300
Others b/	700	670	600	150	160
Total	9,900	10,500	8,900	2,100	2,150

a. Rounded to reflect the maximum number of significant digits consistent with estimating procedures.
b. Helicopters, gliders, seaplanes, and utility aircraft.

Table 2

Estimated Production of Aircraft in the Sino-Soviet Bloc, by Weight
1953 through First Quarter 1956

	Thousand Pounds of Airframe Weight [a]				
Type of Aircraft	1953	1954	1955	4th Quarter of 1955	1st Quarter of 1956
Jet bomber					
Heavy	0	1,100	6,800	2,500	2,900
Medium	510	8,600	15,000	4,400	4,600
Light	26,000	23,000	18,000	4,200	4,200
Piston bomber					
Medium	6,000	0	0	0	0
Jet fighter	28,500	29,000	26,000	6,100	6,900
Ground attack	3,600	1,600	480	0	0
Transport	9,000	9,400	5,000	1,500	1,100
Trainer					
Jet	3,200	8,600	10,000	2,700	2,700
Piston	900	1,400	1,900	470	470
Others [b]	6,800	6,600	5,600	1,400	1,500
Total	84,000	90,000	89,000	23,000	24,000

a. These figures include production of spare parts and are rounded to reflect the maximum number of significant digits consistent with estimating procedures.
b. Helicopters, gliders, seaplanes, and utility aircraft.

Table 3

Estimated Cumulative Production of Selected Soviet Military Aircraft through First Quarter 1956

Units a/

Model	Type of Aircraft	Production to 1 April 1956
Badger	Jet medium bomber	580
Beagle	Jet light bomber	6,200
Bison	Jet heavy bomber	100
Camel	Jet transport	2
Farmer	Jet fighter	310
Flashlight	Jet all-weather interceptor	320
Fresco	Jet fighter	9,000
Horse	Helicopter	25
Hound	Helicopter	420
New fighter	Probable jet fighter	160

a. Rounded to reflect the maximum number of significant digits consistent with estimating procedures.

Table 4

Estimated Production of Aircraft in the USSR, by Number
1953 through First Quarter 1956

Units a/

Type of Aircraft	1953	1954	1955	4th Quarter of 1955	1st Quarter of 1956
Jet bomber					
Heavy	0	10	61	22	26
Medium	10	170	310	86	90
Light	1,400	1,300	990	230	230
Piston bomber					
Medium	130	0	0	0	0
Jet fighter	3,700	3,600	2,800	600	640
Transport	1,700	1,700	890	230	210
Trainer					
Jet	520	1,100	1,100	270	270
Piston	680	830	830	210	210
Others b/	680	650	580	150	150
Total	8,900	9,400	7,500	1,800	1,800

a. Rounded to reflect the maximum number of significant digits consistent with estimating procedures.
b. Helicopters, gliders, and seaplanes.

Table 5

Estimated Production of Aircraft in the USSR, by Weight
1953 through First Quarter 1956

	Thousand Pounds of Airframe Weight a/				
Type of Aircraft	1953	1954	1955	4th Quarter of 1955	1st Quarter of 1956
Jet bomber					
Heavy	0	1,100	6,800	2,500	2,900
Medium	510	8,600	15,500	4,400	4,600
Light	26,000	23,000	18,000	4,200	4,200
Piston bomber					
Medium	6,000	0	0	0	0
Jet fighter	27,000	26,000	22,500	5,400	6,300
Transport	9,000	9,400	5,000	1,400	1,100
Trainer					
Jet	3,200	8,100	8,100	2,000	2,000
Piston	700	920	990	250	250
Others b/	6,700	6,600	5,600	1,400	1,500
Total	79,000	84,000	83,000	22,000	23,000

a. These figures include production of spare parts and are rounded to reflect the maximum number of significant digits consistent with estimating procedures.
b. Helicopters, gliders, and seaplanes.

Table 6

US Military Aircraft Acceptances, by Number
1953 through First Quarter 1956 a/

Units

Type of Aircraft	1953	1954	1955	4th Quarter of 1955	1st Quarter of 1956 b/
Bomber					
Heavy	63	28	34	13	10
Medium	647	767	530	106	134
Light	464	966	786	159	147
Fighter	4,665	3,518	4,017	745	652
Transport	784	634	536	131	97
Trainer	1,961	1,602	1,439	354	289
Others c/	2,046	1,235	701	227	212
Total	10,630	8,750	8,043	1,735	1,541

a. The source for these figures is Office of the Assistant Secretary of Defense (Supply and Logistics), Statistics Division. Control No. C-1131-56, US Military Aircraft Acceptances, 1953-56, Number and Airframe Weight, 23 March 1956. CONFIDENTIAL.
b. Includes preliminary data for March 1956.
c. Helicopters, flying boats, amphibians, and lighter-than-air.

Table 7

US Military Aircraft Acceptances, by Weight
1953 through First Quarter 1956 a/

Type of Aircraft	Thousand Pounds of Airframe Weight				
	1953	1954	1955	4th Quarter of 1955	1st Quarter of 1956 b/
Bomber					
Heavy	7,123	3,304	3,853	1,466	1,130
Medium	30,034	37,296	26,377	5,151	6,211
Light	4,621	9,627	8,758	1,845	1,765
Fighter	40,682	35,390	43,161	8,564	7,627
Transport	36,550	30,614	20,697	4,949	3,633
Trainer	11,302	9,633	7,453	1,416	1,083
Others c/	7,819	4,831	4,397	1,136	1,154
Total	138,131	130,695	114,696	24,527	22,603

a. The source for these figures is Office of the Assistant Secretary of Defense (Supply and Logistics), Statistics Division. Control No. C-1131-56, US Military Aircraft Acceptances, 1953-56, Number and Airframe Weight, 23 March 1956. CONFIDENTIAL.
b. Includes preliminary data for March 1956.
c. Helicopters, flying boats, amphibians, and lighter-than-air.

Table 8

Estimated Production of Aircraft in the European Satellites, by Number
1953 through First Quarter 1956

Units a/

Country	Type of Aircraft	1953	1954	1955	4th Quarter of 1955	1st Quarter of 1956
Czechoslovakia	Jet fighter	290	390	240	33	33
	Ground attack	460	210	60	0	0
	Jet trainer	0	89	310	100	100
	Piston trainer	67	190	360	92	91
	Small transport	0	0	18	8	11
Total		820	880	990	240	240
Poland	Jet fighter	4	150	310	79	79
	Piston trainer	0	60	0	0	0
Total		4	210	310	79	79
Bulgaria	Piston trainer	100	0	0	0	0
Rumania	Piston trainer	24	24	24	6	6
Hungary	Utility	20	24	24	6	6
Grand total		970	1,140	1,350	330	330

a. Rounded to reflect the maximum number of significant digits consistent with estimating procedures.

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Table 9

Estimated Production of Aircraft in the European Satellites, by Weight
1953 through First Quarter 1956

		Thousand Pounds of Airframe Weight [a]				
Country	Type of Aircraft	1953	1954	1955	4th Quarter of 1955	1st Quarter of 1956
Czechoslovakia	Jet fighter	1,700	2,300	1,400	190	200
	Ground attack	3,600	1,600	480	0	0
	Jet trainer	0	550	1,900	650	650
	Piston trainer	71	410	870	220	220
	Small trainer	0	0	28	12	17
Total		5,400	4,900	4,700	1,100	1,100
Poland	Jet fighter	24	860	1,800	470	470
	Piston trainer	0	58	0	0	0
Total		24	920	1,800	470	470
Bulgaria	Piston trainer	110	0	0	0	0
Rumania	Piston trainer	22	22	22	6	6
Hungary	Utility	14	17	17	4	4
Grand total		5,600	5,900	6,600	1,500	1,600

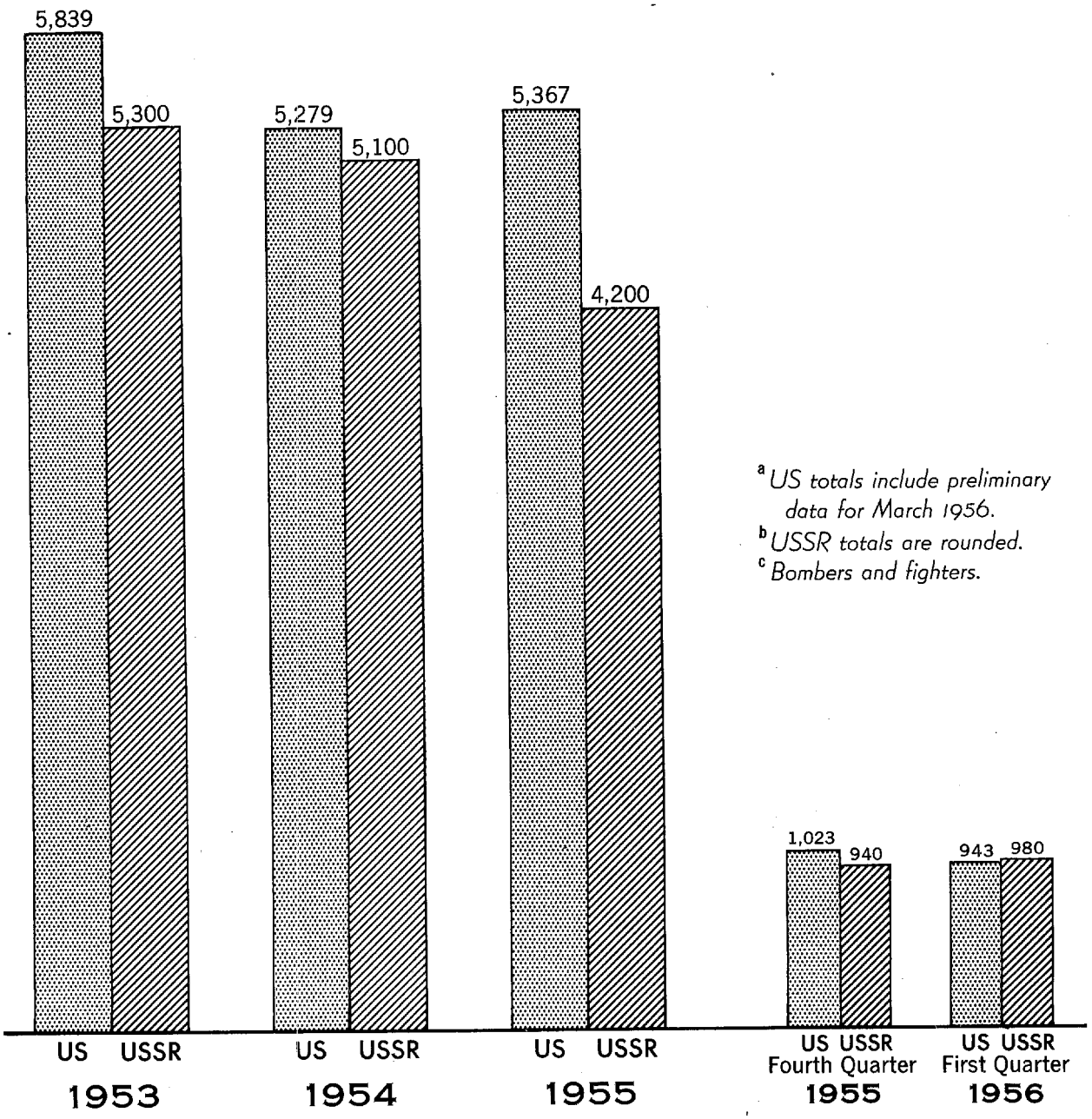
a. These figures include production of spare parts. Rounded to reflect the maximum number of significant digits consistent with estimating procedures.

FIGURE 1

US[a] and USSR[b]

PRODUCTION OF MILITARY AIRCRAFT,[c] BY NUMBER

1953 through First Quarter 1956



[a] US totals include preliminary data for March 1956.
[b] USSR totals are rounded.
[c] Bombers and fighters.

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FIGURE 2

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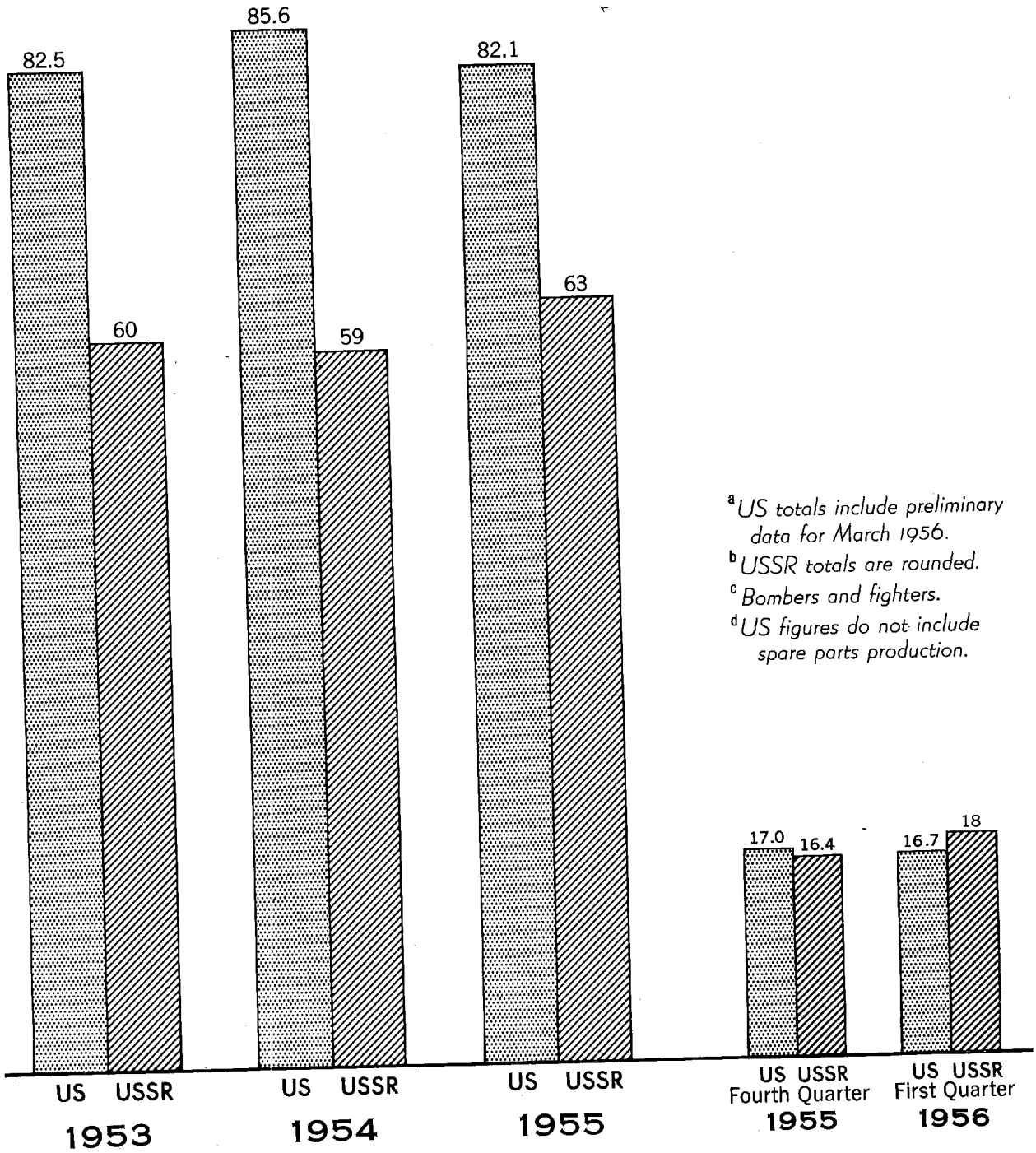
US[a] and USSR[b]

PRODUCTION OF MILITARY AIRCRAFT,[c] BY WEIGHT[d]

1953 through First Quarter 1956

(Million pounds of airframe weight)



[a] *US totals include preliminary data for March 1956.*
[b] *USSR totals are rounded.*
[c] *Bombers and fighters.*
[d] *US figures do not include spare parts production.*

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